ATTACHMENT I - RFA APPROVAL FORM

Facility Name Chemical Recovery Corporation

Facility Location Kansas City, MO

EPA ID Number MOD 000 669 028

Date RFA Approved September 25, 1996

Is RFI needed*? Y (N)

Can CMS be imposed now? Y (N)

Are IM needed? Y (N)

If explanations needed, provide here:

* Releases at the site appear localized in nature and generally of low concentration. Conditions suggest facility is amenable to abbreviated investigation and/or remediation.

Number of SWMUs 0 **and/or AOCs** 1 **requiring corrective action.**

Priority for Corrective Action
(Circle One) **1 2 (3) 4 5 6 7 8 9 10**
Low----------->Medium----------->High
(Exposure Potential) (Exposure Potential) (Actual Exposure)

Choice of oversight strategy (based on severity of environmental harm, characteristics of owner/operator, and level of concern)

_____ Voluntary: without a permit or order

__X__ Quasi-Voluntary*: minimal oversight, letter of agreement

_____ Briefing/Audit: limited oversight, progress briefings only

_____ Hybrid: more oversight, plan reviews, site visits

_____ Full: intensive oversight, all plans reviewed, regular site visits

If explanations needed, please provide:

* Stabilization measures do not appear warranted given the nature and low concentrations of the chemicals of concern in soil and the resulting low potential for exposure. Future submittal of any workplans and reports by facility related to contaminants investigation/remediation will be reviewed and approved by appropriate RCRA staff to ensure that RCRA corrective action requirements are addressed. Periodic site visit are also planned. Field oversight will be provided as deemed necessary by MDNR.

Signature _____ **Date** 9/20/96

MISSOURI DEPARTMENT OF NATURAL RESOURCES

FINAL
RCRA FACILITY ASSESSMENT REPORT
ADDENDUM

CHEMICAL RECOVERY COPORATION
KANSAS CITY, MISSOURI
EPA ID NO. MOD 000 669 028

PREPARED BY:

HAZARDOUS WASTE PROGRAM

SEPTEMBER 1996

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1.0 INTRODUCTION

This addendum has been prepared by the Missouri Department of Natural Resources' (MDNR) Hazardous Waste Program (HWP) as a supplement to the attached Chemical Recovery Corporation (CRC) final Environmental Priorities Initiative/Preliminary Assessment (EPI/PA) report dated December 11, 1991. The addendum was developed to more closely reflect current knowledge of site conditions in addition to the environmental data contained in the final EPI/PA report. This final addendum consists of a RCRA Facility Sampling Visit (SV) report, analytical results, narrative discussions, and conclusions/recommendations resulting from the assessment of Solid Waste Management Units (SWMUs) and/or Areas of Concern (AOCs) discovered since preparation of the final EPI/PA report. The SV element is an integral part of this RCRA Facility Assessment (RFA) and was necessary to evaluate actual and/or potential release(s) of hazardous constituents to the environment.

2.0 OBJECTIVES AND APPROACH

In general, the main objective of performing the SV was to complete the RFA as part of the RCRA Corrective Action process by identifying release(s) of hazardous wastes or hazardous constituents from SWMUs/AOCs through the collection and analysis of selected environmental samples. During the review of the final EPI/PA report which was previously prepared by EPA's contractor, the MDNR identified potential releases from several SWMUs/AOCs at the CRC site in Kansas City. The MDNR then conducted a site reconnaissance visit (SRV) after which the sampling recommendations were revised and finalized. A SV was then implemented in accordance with the final sampling recommendations as a means to assess whether or not a release(s) of hazardous constituents to the environment had occurred or was occurring from certain SWMUs/AOCs described in the final EPI/PA report.

This RFA addendum is based on the findings of the final EPI/PA report, file review, SRV, sampling visit, and the results of the sample analysis. Unless specifically referenced, all observations contained in this report were made during the SRV and SV. Based on the findings of the RFA, further corrective action may be required, including a RCRA Facility Investigation (RFI) and/or Corrective Measure Study (CMS).

3.0 SITE RECONNAISSANCE VISIT

Following review of the final EPI/PA report and prior to the SV, the MDNR developed draft sampling recommendations. Subsequently, the MDNR conducted a SRV on January 10, 1996, to assess current site conditions, locate and evaluate the individual SWMUs/AOCs for which sampling appeared necessary, evaluate potential hazards associated with sampling and gather up-to-date sampling information. The HWP's draft sampling recommendations were coordinated with the EPA and MDNR's Environmental Services Program (ESP) prior to the SRV.

At the time of the SRV, the MDNR representatives explained the SRV objectives and the upcoming sampling effort to Mr. Merril Nissen (owner of the CRC facility). The MDNR then assessed the individual SWMUs/AOCs characteristics relative to actual/potential release(s) of hazardous constituents to the environment as a result of past waste management practices.

Aside from the individual SWMUs/AOCs discussed in the final EPI/PA report, the MDNR identified a new AOC #5 to be added to the final RFA. AOC #5 is essentially the ground surrounding and in the immediate vicinity of the CRC building. Sampling of AOC #5 consisted of five near-surface soil samples, including a duplicate. The locations of all samples including a background sample are shown on a site map in Appendix A of the attached sampling report.

Upon completion of the SRV, the draft sampling recommendations were limited to AOC #5, finalized and sent to EPA, ESP, and the facility prior to the SV. The facility was asked to locate underground utilities and to provide access to the areas where sampling was anticipated and was offered the opportunity to split samples with MDNR.

4.0 SAMPLING VISIT

On arriving at the site on March 13, 1996, the MDNR explained the revised sampling recommendations relative to current site conditions to Mr. Merril Nissen. The MDNR then proceeded to collect eight samples, including one field duplicate, one field blank, one trip blank, and one equipment blank sample for quality assurance/quality control purposes. CRC split all soil samples with MDNR. All sampling activities followed EPA's guidance, analytical methods (i.e., SW-846), and ESP's Standard Operating Procedures. Sampling was conducted in those locations described in the final sampling recommendations prepared by the HWP. Analyses were also performed in accordance with these

recommendations. A complete sampling report consisting of sampling methods, observations, and data summary can be found in Appendix B. The field activity logbook notes can be found in Appendix D.

The sampling report findings relative to contaminant levels are discussed in Section 5.0. Conclusions as to the presence/absence of actual/potential release(s) is based on comparison with site-specific background chemical concentrations, statistical analysis of chemical concentrations, and/or comparison with other levels contained in scientific literature or regulatory guidance, as appropriate.

5.0 DATA SUMMARY

All samples collected at the CRC site were analyzed by the ESP's laboratory. The analytical results and laboratory review of data quality are discussed below. Further information regarding sample descriptions and numbers may be found in the laboratory report contained in Appendix B.

I. Data Quality

All samples were appropriately collected, containerized, labelled, preserved, transported, and were analyzed within applicable holding times. All samples were transmitted to the ESP's laboratory under appropriate chain-of-custody procedures. Analytical data was generally within quality control limit requirements for precision, accuracy, and completeness. Certain constituents were detected in the quality control samples, including trip, and field. Those constituents detected in the blanks are discussed in the following section.

II. Analytical Data

AOC #5

A review of the metals data indicates lead was detected in all soil samples at concentrations above the on-site background lead concentration of 23.7 mg/kg. As indicated on Table 1, elevated lead was reported in Samples 1378, 1379, 1380, and 1381 at concentrations of 137 mg/kg, 207 mg/kg, 812 mg/kg, and 878 mg/kg, respectively. The highest lead concentration of 878 mg/kg is at least 38 times the lead concentration of 23.7 mg/kg in the background soil sample collected from the southwest corner of the site.

To further evaluate lead concentrations detected in the soil

samples collected on-site, the MDNR compared lead concentrations detected in the soils to other relevant regulatory/guidance documents. Three sources were used for regulatory limits/guidance, including the Geochemical Survey of Missouri for Agricultural Soils, Missouri Department of Health (MDOH) proposed Any-Use Soil Levels (ASLs), and EPA Region III Risk-Based Concentrations (RBCs) Tables for Soils, dated April 19, 1996.

As indicated on Table 1, lead exceeded the range of 15 mg/kg to 70 mg/kg in regional agricultural surface soil relative to the subject area. It appears that the highest lead concentration reported in Sample 1381 is at least an order of magnitude greater than the highest lead concentration found in regional agricultural surface soils.

A comparison of the increase contaminant concentrations was also made to the MDOH proposed ASLs. The ASLs are health-based levels which consider residential soil ingestion and exposure type scenarios. EPA Region III RBCs are also health-based levels which consider both residential and industrial soil ingestion and exposure type scenarios. In this instance, contaminant concentrations are compared only to residential soil levels given the potential public access to the site and the adjacent land uses. Comparison of the on-site lead concentrations to the MDOH proposed ASLs provides a qualitative measure of potential risk-based soil quality-related concerns. As indicated on Table 1, lead concentrations detected in the Soil Samples 1380 and 1381 exceed the respective MDOH proposed ASL of 240 mg/kg for lead. Lead concentrations in Samples 1378 and 1379 are near the respective MDOH proposed ASL based on the raw measurements but may not be statistically elevated or otherwise represent levels of concern. No EPA RBC was established for lead. Collection of additional samples may be necessary to adequately assess the presence or absence of actual release(s) and thereby indicate the need, or lack thereof, for further investigation to establish the extent of impact along the west side of the CRC building. However, evidence of a lead release in the area between the tank trailer and CRC building is suggested and further investigation appears warranted relative to establishing the extent of impact.

Chromium, copper, and nickel were detected in the dirt pile on the east site of the building (Sample 1378) and in the area between the tank trailer and CRC building (Samples 1380 and 1381) above the on-site background metal concentrations. Metal concentrations in the above-referenced samples are slightly higher than the background soil levels, but may not be statistically elevated or otherwise represent levels of concern. Metal concentrations are below MDOH ASLs and EPA RBCs. However,

collection of additional samples may be necessary to adequately assess the presence or absence of actual release(s) at these locations and thereby indicate the need, or lack thereof, for further investigation to establish the extent of impact. The results for these elevated metals are presented in Table 1.

Several semi-volatile organic compounds (SVOCs) were detected in Samples 1377, 1378, 1380, and 1381 at concentrations above method detection limits. The majority of detected SVOCs constituents are classified as polynuclear aromatic hydrocarbons (PAHs). The highest PAH concentrations were in samples (1380 and 1381) collected between the tank trailer and CRC building. Elevated organics and metals could relate to the repeated practice of transferring the contents of the trailer to the building via hoses, sloppy housekeepers, etc. PAHs are also reported in Samples 1377 and 1378 at concentrations lower than those detected in Samples 1380 and 1381.

A comparison of the increased contaminant concentrations was made to the MDOH proposed ASLs and EPA RBCs. As indicated on Table 2, benzo(a)pyrene is the only PAH was detected at a concentration of 1.1/1.3 mg/kg above the MDOH proposed ASL and EPA RBC at concentrations of 0.68 mg/kg and 0.088/0.78 mg/kg, respectively. Benzo(a)anthracene and benzo(b)fluoranthene are detected at concentrations 1/1.1 mg/kg and 1.8 mg/kg, respectively above EPA RBCs of 0.88 mg/kg. It is observed that the highest PAHs levels are detected in the same samples which have a high metal content, especially lead. Although contaminant concentrations appear generally below levels of concern, this is based on only two samples. Evidence of releases around the CRC building, especially at the location of the tank trailer and CRC building, is indicated and further investigation appears warranted relative to assessing the extent of soil impacts.

QA/QC Samples

Analysis of the soil trip blank, which was never opened in the field, indicates the presence of benzene and toluene at concentrations of 99 ug/kg and 32 ug/kg, respectively. The soil field blank, which was opened in the field, indicates the presence of benzene and toluene at concentrations of 98 ug/kg and 70 ug/kg, respectively. These analytes were present in other blanks associated with the RFA effort at other sites during this round of sampling and appear related to some unidentified aspect of sample handling or processing. Interestingly, none of these compounds was detected in the actual facility samples. The reported levels are below any levels of concern and are not considered facility-related constituents in this instance.

The natural soil used to develop the trip and field blank samples was collected from a rural area which was undisturbed and initially proved to be uncontaminated. The soil sample was analyzed to confirm/disprove the presence of contamination. The analytical results indicate no volatile organic aromatics contamination above method detection limits prior to heating for the purpose of blank preparation. The soil was then placed in a high-temperature oven at 800 degrees Celsius for four hours. An extra blank sample, which never left the laboratory nor was opened, was analyzed and reported the presence of benzene and toluene at concentrations of 47 ug/kg and 28 ug/kg, respectively. This suggests that the contamination occurred during the preparation and storage of the blank samples, not as a result of existing contamination or inappropriate collection of samples. These results are included in Appendix B.

The contamination in the soil blanks could be due to a vacuum created in the sample jars after the lids were replaced and while the jars were still cooling. Any vacuum created in the sample jar could act to concentrate contaminants found in the ambient air in the laboratory or elsewhere. Detailed information/explanation regarding soil blank preparation can be found in the ESP Sampling Visit Report in Appendix B.

TABLE 1

SUMMARY OF ESP TOTAL ANALYTICAL RESULTS FOR METALS, mg/kg

Chemical Recovery Corporation
Kansas City, Missouri

Sample ID	Chromium	Copper	Nickel	Lead
Soil grab from NE side of the bldg. next to trailer, Sample No. 1380	19.4	100	14.2	812
Field duplicate, Sample No. 1381	25.4	155	20.3	878
Soil beneath dirt pile on SE side of the bldg., Sample No. 1378	39.4	145	33.1	207
Soil from dirt pile on SE side of the bldg., Sample No. 1379	34.7	19.9	19.6	137
Background soil from SW corner of the lot, Sample No. 1376	17.4	15.2	18.8	23.7
EPA Region III Risk-Based Concentrations for Residential Soils	390	3,100	1,600	NE
Proposed Missouri Any-Use Soil Level for Residential Settings	280	NE	1,100	240
Proposed HSWA Subpart S Action Level	400	NE	200	NE

NE: Not established

TABLE 2

SUMMARY OF ESP ANALYTICAL RESULTS FOR SEMI-VOLATILES, mg/kg

Chemical Recovery Corporation
Kansas City, Missouri

Contaminant	Soil grab from NE side of the bldg. next to trailer, Sample No. 1380	Field duplicate, Sample No. 1381	MDOH Proposed Any-Use Soil Levels for Residential Settings	EPA Region III Risk-Based Concentrations for Soils
Benzo(a)anthracene	1.1	1	4.5	0.88/7.8
Chrysene	1.2	1.2	160	88/780
Bis(2-ethylhexyl)phthalate	0.1	<0.1	100	46/410
Benzo(b)fluoranthene	1.8	1.8	4	0.88/7.8
Benzo(k)fluoranthene	0.53	0.46	34	8.8/78
Benzo(a)pyrene	1.1	1.3	0.68	0.088/0.78
Indeno(1,2,3-cd)pyrene	<0.1	1.3	12	0.88/7.8

NE: Not established

6.0 RFA CONCLUSIONS AND RECOMMENDATIONS

Based on the information presented in the final EPI/PA report and the analytical results obtained from the sampling visit shown in Appendix B, the MDNR has determined that of the SWMUs/AOCs identified in the final EPI/PA report, newly identified AOC #5 appears to require further contaminant screening and/or investigation to determine the extent of environmental impact.

Hazardous constituents releases in the area between the tank trailer and CRC building (AOC #5) appear to require further investigation to adequately characterize the nature and extent of metals contamination.

The MDNR acknowledges that the conclusions regarding the presence of actual release(s) from the dirt pile and west side of the building remain inconclusive. Although metal and organic concentrations at these two locations appear to be generally below levels of concern, this is based on only three samples. Further contaminant screening may be warranted to confirm/disprove the presence of metals/organics at higher concentrations and/or the presence of other organic hazardous constituents at levels of concern before decisions are made regarding the need, or lack thereof, for more detailed investigation of these areas.

Evidence of release(s) from the individual SWMUs/AOCs described in the final EPI/PA report is not apparent. Thus, additional screening/investigation of SWMUs/AOCs with the exception of AOC #5 does not appear warranted. No further action is recommended for these SWMUs/AOCs.

The above conclusions and recommendations contained herein supersede those presented in the final EPI/PA report dated December 11, 1991.

REFERENCES

1. U.S. EPA Region III Risk-Based Concentration Table, April 19, 1996, from Roy L. Smith, Ph.D., Office of RCRA, Technical & Program Support Branch (3HW70).

2. Missouri Department of Health Proposed Any-Use Soil Levels for Residential Soils, May 2, 1996.

3. Geochemical Survey of Missouri, Geography of Soil Geochemistry and Classification by Factor Analysis of Missouri Agricultural Soils, published by Ronald R. Tidball in 1984, Geological Survey Professional Paper 954-H, I.

APPENDIX A

HWP SAMPLING RECOMMENDATIONS

FINAL SAMPLING RECOMMENDATIONS FOR
CHEMICAL RECOVERY CORPORATION
6402 STADIUM DR.
KANSAS CITY, MISSOURI
EPA ID NO. MOD000669028

TABLE 1: SWMUs/AOCs, SAMPLING RATIONALE, AND POTENTIAL CONTAMINANTS OF CONCERN

SWMU/AOC NO.	SWMUs/PROBLEMS	SAMPLING RATIONALE	POTENTIAL CONTAMINANTS OF CONCERN
AOC #5	Areas around the building	Potential past release of waste solutions to soil.	Waste solutions containing toxic metals

TABLE 2: SAMPLING APPROACH AND METHOD

SWMU/AOC NO.	SWMU	SAMPLING APPROACH/LOCATIONS	NUMBER OF SAMPLES	REQUESTED ANALYTICAL PARAMETERS/METHOD
AOC #5	Areas around the building	Collect one soil samples between tanker trailer and building, one soil samples from soil pile and one sample along foundation adjacent to inside precipitation process area, and one soil sample on other side of building along foundation adjacent to SWMU #1.	4 subsurface soil sample (0 to 12")	VOA: GC/MS Method 8260 Semi-volatile: GC/MS Method 8270 Total metals*
Background	Sample locations are field determined	Collect subsurface soil samples upgradient of contaminated areas with least disturbance (2 sample locations)	1 subsurface soil samples (12" to 24")	Total metals*
Total Samples: 3 VOA, 3 BN, 3 AE, and 5 total metals* (20 total analyses) soil samples				

Semi-volatiles include: Base Neutrals (BN) and Acid Extractables (AE)

* Methods for Analyzing Metals:

Method 7190:	Chromium	Method 7210:	Copper
Method 7420:	Lead	Method 7520:	Nickel

TABLE 3: FIELD QUALITY CONTROL SAMPLE SUMMARY

QC Sample	FREQUENCY/PROJECTED QUANTITY	ANALYSIS
FIELD DUPLICATE	One soil sample taken from AOC 5 (between tanker trailer and bldg.)	VOA, BN, AE, Total metals*
EQUIPMENT BLANK	One per day, per equipment type	VOA, BN, AE, Total metals*
FIELD BLANK	One per day	VOA
TRIP BLANK	One per cooler containing samples for VOC analyses	VOA
Total QC Samples: 4 VOA, 2 BN, 2 AE, and 2 total metals* (8 total analyses) soil samples		

Grand Total Samples and Analyses/Matrix:

7 VOA (6 soil/1 water)
7 Total metals* [28 total analyses (24 soil/4 water)]
5 BN (4 soil/1 water)
5 AE (4 soil/1 water)

* Methods for Analyzing Metals:

Method 7190: Chromium Method 7210: Copper
Method 7420: Lead Method 7520: Nickel

APPENDIX B

ESP SAMPLING VISIT REPORT INCLUDING ANALYTICAL RESULTS

APPENDIX B

Analytical Results
Chemical Recovery Corp. RFA
Kansas City, MO
March 13, 1996

STATE OF MISSOURI Mel Carnahan, Governor • David A. Shorr, Director

DEPARTMENT OF NATURAL RESOURCES

DIVISION OF ENVIRONMENTAL QUALITY

P.O. Box 176 Jefferson City, MO 65102-0176

ENVIRONMENTAL SERVICES PROGRAM

RESULTS OF SAMPLE ANALYSES

Sample Number: 96-1376
Lab Number: 96-D638

Reported To: JOE BOLAND
Affiliation: FSS
Project Code: 3531/3354

Report Date: 4/ 3/96
Date Collected: 3/13/96
Date Received: 3/14/96

Sample Collected by: JOE BOLAND, FSS
Sampling Location: CHEMICAL RECOVERY, KANSAS CITY, MO,
Sample Description: GRAB, SOIL FROM SW CORNER OF LOT, 2' DEEP, BACKGROUND

Analysis Performed	Results		Analyzed	Method
Silver, Total	< 2,500	ug/kg	3/28/96	200.7
Chromium, Total	17,400	ug/kg	3/25/96	200.7
Copper, Total	15,200	ug/kg	3/28/96	200.7
Nickel, Total	18,800	ug/kg	3/28/96	200.7
Lead, Total	23,700	ug/kg	3/25/96	239.2

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency.

James H. Long, Director
Environmental Services Program
Division of Environmental Quality

c: KATHY FLIPPIN, HWP

STATE OF MISSOURI
Mel Carnahan, Governor • David A. Shorr, Director
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176 Jefferson City, MO 65102-0176

ENVIRONMENTAL SERVICES PROGRAM

RESULTS OF SAMPLE ANALYSES

Sample Number: 96-1377
Lab Number: 96-D640

Reported To: JOE BOLAND
Affiliation: FSS
Project Code: 3531/3354

Report Date: 4/ 5/96
Date Collected: 3/13/96
Date Received: 3/14/96

Sample Collected by: JOE BOLAND, FSS
Sampling Location: CHEMICAL RECOVERY, KANSAS CITY, MO,
Sample Description: GRAB, SOIL FROM WEST SIDE OF BLDG, FROM 2-3' INTERVAL

Analysis Performed	Results		Analyzed	Method
Silver, Total	< 2,500	ug/kg	3/25/96	200.7
Chromium, Total	18,200	ug/kg	3/25/96	200.7
Copper, Total	19,500	ug/kg	3/25/96	200.7
Nickel, Total	21,200	ug/kg	3/25/96	200.7
Lead, Total	59,900	ug/kg	3/25/96	239.2
VOA Results:				
Chloromethane	< 25.0	ug/kg	3/23/96	8260
Vinyl Chloride	< 25.0	ug/kg	3/23/96	8260
Bromomethane	< 25.0	ug/kg	3/23/96	8260
Chloroethane	< 25.0	ug/kg	3/23/96	8260
1,1-Dichloroethene	< 25.0	ug/kg	3/23/96	8260
Acetone	< 100	ug/kg	3/23/96	8260
Carbon Disulfide	< 25.0	ug/kg	3/23/96	8260
Methylene Chloride	< 25.0	ug/kg	3/23/96	8260
Methyl Tertiary Butyl Eth	< 25.0	ug/kg	3/23/96	8260
trans-1,2-Dichloroethene	< 25.0	ug/kg	3/23/96	8260
1,1-Dichloroethane	< 25.0	ug/kg	3/23/96	8260
2-Butanone	< 100	ug/kg	3/23/96	8260
cis-1,2-Dichloroethene	< 25.0	ug/kg	3/23/96	8260
Chloroform	< 25.0	ug/kg	3/23/96	8260
1,1,1-Trichloroethane	< 25.0	ug/kg	3/23/96	8260
Carbon Tetrachloride	< 25.0	ug/kg	3/23/96	8260
Benzene	< 25.0	ug/kg	3/23/96	8260
1,2-Dichloroethane	< 25.0	ug/kg	3/23/96	8260
Trichloroethene	< 25.0	ug/kg	3/23/96	8260

Analysis Performed	Results		Analyzed	Method
1,2-Dichloropropane	< 25.0	ug/kg	3/23/96	8260
Bromodichloromethane	< 25.0	ug/kg	3/23/96	8260
2-Hexanone	< 100	ug/kg	3/23/96	8260
Trans-1,3-Dichloropropene	< 25.0	ug/kg	3/23/96	8260
Toluene	< 25.0	ug/kg	3/23/96	8260
CIS-1,3-Dichloropropene	< 25.0	ug/kg	3/23/96	8260
1,1,2-Trichloroethane	< 25.0	ug/kg	3/23/96	8260
4-Methyl-2-Pentanone	< 100	ug/kg	3/23/96	8260
Tetrachloroethene	< 25.0	ug/kg	3/23/96	8260
Dibromochloromethane	< 25.0	ug/kg	3/23/96	8260
Chlorobenzene	< 25.0	ug/kg	3/23/96	8260
Ethylbenzene	< 25.0	ug/kg	3/23/96	8260
Total Xylenes	< 25.0	ug/kg	3/23/96	8260
Styrene	< 25.0	ug/kg	3/23/96	8260
Bromoform	< 25.0	ug/kg	3/23/96	8260
1,1,2,2-Tetrachloroethane	< 25.0	ug/kg	3/23/96	8260
1,3-Dichlorobenzene	< 25.0	ug/kg	3/23/96	8260
1,4-Dichlorobenzene	< 25.0	ug/kg	3/23/96	8260
1,2-Dichlorobenzene	< 25.0	ug/kg	3/23/96	8260
BNA Results:				
Phenol	< 100	ug/kg	3/27/96	8270
bis(-2-Chloroethyl)Ether	< 100	ug/kg	3/27/96	8270
2-Chlorophenol	< 250	ug/kg	3/27/96	8270
1,3-Dichlorobenzene	< 100	ug/kg	3/27/96	8270
1,4-Dichlorobenzene	< 100	ug/kg	3/27/96	8270
N-nitrosodimethylamine	< 100	ug/kg	3/27/96	8270
1,2-Dichlorobenzene	< 100	ug/kg	3/27/96	8270
2-Methylphenol	< 100	ug/kg	3/27/96	8270
bis(2-Chloroisopropyl)Eth	< 100	ug/kg	3/27/96	8270
4-Methylphenol	< 100	ug/kg	3/27/96	8270
N-Nitro-Di-n-Propylamine	< 100	ug/kg	3/27/96	8270
Hexachloroethane	< 100	ug/kg	3/27/96	8270
Nitrobenzene	< 100	ug/kg	3/27/96	8270
Isophorone	< 100	ug/kg	3/27/96	8270
2-Nitrophenol	< 100	ug/kg	3/27/96	8270
2,4-Dimethylphenol	< 100	ug/kg	3/27/96	8270
Benzoic Acid	< 100	ug/kg	3/27/96	8270
bis(2-Chloroethoxy)Methan	< 100	ug/kg	3/27/96	8270
2,4-Dichlorophenol	< 100	ug/kg	3/27/96	8270
1,2,4-Trichlorobenzene	< 100	ug/kg	3/27/96	8270
Naphthalene	130	ug/kg	3/27/96	8270
4-Chloroaniline	< 250	ug/kg	3/27/96	8270
Hexachlorobutadiene	< 100	ug/kg	3/27/96	8270
4-Chloro-3-Methylphenol	< 250	ug/kg	3/27/96	8270
2-Methylnaphthalene	280	ug/kg	3/27/96	8270
Hexachlorocyclopentadiene	< 100	ug/kg	3/27/96	8270
2,4,6-Trichlorophenol	< 100	ug/kg	3/27/96	8270
2,4,5-Trichlorophenol	< 250	ug/kg	3/27/96	8270

Lab Number: 96-D640
Sample Number: 96-1377
April 5, 1996

Analysis Performed	Results		Analyzed	Method
2-Chloronaphthalene	< 100	ug/kg	3/27/96	8270
2-Nitroaniline	< 250	ug/kg	3/27/96	8270
Dimethylphthalate	< 100	ug/kg	3/27/96	8270
Acenaphthylene	< 100	ug/kg	3/27/96	8270
2,6-Dinitrotoluene	< 100	ug/kg	3/27/96	8270
3-Nitroaniline	< 250	ug/kg	3/27/96	8270
Acenaphthene	< 100	ug/kg	3/27/96	8270
2,4-Dinitrophenol	< 250	ug/kg	3/27/96	8270
4-Nitrophenol	< 250	ug/kg	3/27/96	8270
Dibenzofuran	< 100	ug/kg	3/27/96	8270
2,4-Dinitrotoluene	< 100	ug/kg	3/27/96	8270
Diethylphthalate	< 100	ug/kg	3/27/96	8270
4-Chlorophenyl-phenylethe	< 100	ug/kg	3/27/96	8270
Fluorene	< 100	ug/kg	3/27/96	8270
4-Nitroaniline	< 250	ug/kg	3/27/96	8270
4,6-Dinitro-2-Methylpheno	< 250	ug/kg	3/27/96	8270
N-Nitrosodiphenylamine	< 100	ug/kg	3/27/96	8270
4-Bromophenyl-phenylether	< 100	ug/kg	3/27/96	8270
Hexachlorobenzene	< 100	ug/kg	3/27/96	8270
Pentachlorophenol	< 250	ug/kg	3/27/96	8270
Phenanthrene	430	ug/kg	3/27/96	8270
Anthrancene	< 100	ug/kg	3/27/96	8270
Di-n-Butylphthalate	790	ug/kg	3/27/96	8270
Fluoranthene	470	ug/kg	3/27/96	8270
Pyrene	520	ug/kg	3/27/96	8270
Butylbenzylphthalate	< 100	ug/kg	3/27/96	8270
3-3'-Dichlorobenzidine	< 250	ug/kg	3/27/96	8270
Benzo(a)anthracene	250	ug/kg	3/27/96	8270
Chrysene	230	ug/kg	3/27/96	8270
bis(2-ethylhexyl)phthalat	< 100	ug/kg	3/27/96	8270
Di-n-Octylphthalate	< 100	ug/kg	3/27/96	8270
Benzo(b)fluoranthene	250	ug/kg	3/27/96	8270
Benzo(k)fluoranthene	< 100	ug/kg	3/27/96	8270
Benzo(a)pyrene	180	ug/kg	3/27/96	8270
Indeno(1,2,3-cd)pyrene	150	ug/kg	3/27/96	8270
Dibenz(a,h)anthracene	< 100	ug/kg	3/27/96	8270
Benzo(g,h,i)perylene	130	ug/kg	3/27/96	8270

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency.

James H. Long, Director
Environmental Services Program
Division of Environmental Quality

c: KATHY FLIPPIN, HWP

STATE OF MISSOURI Mel Carnahan, Governor • David A. Shorr, Director
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176 Jefferson City, MO 65102-0176

ENVIRONMENTAL SERVICES PROGRAM

RESULTS OF SAMPLE ANALYSES

Sample Number: 96-1378
Lab Number: 96-D642

Reported To: JOE BOLAND
Affiliation: FSS
Project Code: 3531/3354

Report Date: 4/ 5/96
Date Collected: 3/13/96
Date Received: 3/14/96

Sample Collected by: JOE BOLAND, FSS
Sampling Location: CHEMICAL RECOVERY, KANSAS CITY, MO,
Sample Description: GRAB, SOIL FROM DIRT PILE ON EAST SIDE OF BLDG, 2-3' DEEP, BORING #1

Analysis Performed	Results		Analyzed	Method
Silver, Total	< 2,500	ug/kg	3/25/96	200.7
Chromium, Total	39,400	ug/kg	3/25/96	200.7
Copper, Total	145,000	ug/kg	3/25/96	200.7
Nickel, Total	33,100	ug/kg	3/25/96	200.7
Lead, Total	207,000	ug/kg	3/25/96	239.2
VOA Results:				
Chloromethane	< 25.0	ug/kg	3/23/96	8260
Vinyl Chloride	< 25.0	ug/kg	3/23/96	8260
Bromomethane	< 25.0	ug/kg	3/23/96	8260
Chloroethane	< 25.0	ug/kg	3/23/96	8260
1,1-Dichloroethene	< 25.0	ug/kg	3/23/96	8260
Acetone	< 100	ug/kg	3/23/96	8260
Carbon Disulfide	< 25.0	ug/kg	3/23/96	8260
Methylene Chloride	< 25.0	ug/kg	3/23/96	8260
Methyl Tertiary Butyl Eth	< 25.0	ug/kg	3/23/96	8260
trans-1,2-Dichloroethene	< 25.0	ug/kg	3/23/96	8260
1,1-Dichloroethane	< 25.0	ug/kg	3/23/96	8260
2-Butanone	< 100	ug/kg	3/23/96	8260
cis-1,2-Dichloroethene	< 25.0	ug/kg	3/23/96	8260
Chloroform	< 25.0	ug/kg	3/23/96	8260
1,1,1-Trichloroethane	< 25.0	ug/kg	3/23/96	8260
Carbon Tetrachloride	< 25.0	ug/kg	3/23/96	8260
Benzene	< 25.0	ug/kg	3/23/96	8260
1,2-Dichloroethane	< 25.0	ug/kg	3/23/96	8260
Trichloroethene	< 25.0	ug/kg	3/23/96	8260

Lab Number: 96-D642
Sample Number: 96-1378
April 5, 1996

Analysis Performed	Results		Analyzed	Method
1,2-Dichloropropane	< 25.0	ug/kg	3/23/96	8260
Bromodichloromethane	< 25.0	ug/kg	3/23/96	8260
2-Hexanone	< 100	ug/kg	3/23/96	8260
Trans-1,3-Dichloropropene	< 25.0	ug/kg	3/23/96	8260
Toluene	< 25.0	ug/kg	3/23/96	8260
CIS-1,3-Dichloropropene	< 25.0	ug/kg	3/23/96	8260
1,1,2-Trichloroethane	< 25.0	ug/kg	3/23/96	8260
4-Methyl-2-Pentanone	< 100	ug/kg	3/23/96	8260
Tetrachloroethene	< 25.0	ug/kg	3/23/96	8260
Dibromochloromethane	< 25.0	ug/kg	3/23/96	8260
Chlorobenzene	< 25.0	ug/kg	3/23/96	8260
Ethylbenzene	< 25.0	ug/kg	3/23/96	8260
Total Xylenes	< 25.0	ug/kg	3/23/96	8260
Styrene	< 25.0	ug/kg	3/23/96	8260
Bromoform	< 25.0	ug/kg	3/23/96	8260
1,1,2,2-Tetrachloroethane	< 25.0	ug/kg	3/23/96	8260
1,3-Dichlorobenzene	< 25.0	ug/kg	3/23/96	8260
1,4-Dichlorobenzene	< 25.0	ug/kg	3/23/96	8260
1,2-Dichlorobenzene	< 25.0	ug/kg	3/23/96	8260
BNA Results:				
Phenol	< 100	ug/kg	3/27/96	8270
bis(-2-Chloroethyl)Ether	< 100	ug/kg	3/27/96	8270
2-Chlorophenol	< 250	ug/kg	3/27/96	8270
1,3-Dichlorobenzene	< 100	ug/kg	3/27/96	8270
1,4-Dichlorobenzene	< 100	ug/kg	3/27/96	8270
N-nitrosodimethylamine	< 100	ug/kg	3/27/96	8270
1,2-Dichlorobenzene	< 100	ug/kg	3/27/96	8270
2-Methylphenol	< 100	ug/kg	3/27/96	8270
bis(2-Chloroisopropyl)Eth	< 100	ug/kg	3/27/96	8270
4-Methylphenol	< 100	ug/kg	3/27/96	8270
N-Nitro-Di-n-Propylamine	< 100	ug/kg	3/27/96	8270
Hexachloroethane	< 100	ug/kg	3/27/96	8270
Nitrobenzene	< 100	ug/kg	3/27/96	8270
Isophorone	< 100	ug/kg	3/27/96	8270
2-Nitrophenol	< 100	ug/kg	3/27/96	8270
2,4-Dimethylphenol	< 100	ug/kg	3/27/96	8270
Benzoic Acid	< 100	ug/kg	3/27/96	8270
bis(2-Chloroethoxy)Methan	< 100	ug/kg	3/27/96	8270
2,4-Dichlorophenol	< 100	ug/kg	3/27/96	8270
1,2,4-Trichlorobenzene	< 100	ug/kg	3/27/96	8270
Naphthalene	300	ug/kg	3/27/96	8270
4-Chloroaniline	< 250	ug/kg	3/27/96	8270
Hexachlorobutadiene	< 100	ug/kg	3/27/96	8270
4-Chloro-3-Methylphenol	< 250	ug/kg	3/27/96	8270
2-Methylnaphthalene	890	ug/kg	3/27/96	8270
Hexachlorocyclopentadiene	< 100	ug/kg	3/27/96	8270
2,4,6-Trichlorophenol	< 100	ug/kg	3/27/96	8270
2,4,5-Trichlorophenol	< 250	ug/kg	3/27/96	8270

Analysis Performed	Results		Analyzed	Method
2-Chloronaphthalene	< 100	ug/kg	3/27/96	8270
2-Nitroaniline	< 250	ug/kg	3/27/96	8270
Dimethylphthalate	< 100	ug/kg	3/27/96	8270
Acenaphthylene	< 100	ug/kg	3/27/96	8270
2,6-Dinitrotoluene	< 100	ug/kg	3/27/96	8270
3-Nitroaniline	< 250	ug/kg	3/27/96	8270
Acenaphthene	< 100	ug/kg	3/27/96	8270
2,4-Dinitrophenol	< 250	ug/kg	3/27/96	8270
4-Nitrophenol	230	ug/kg	3/27/96	8270
Dibenzofuran	260	ug/kg	3/27/96	8270
2,4-Dinitrotoluene	< 100	ug/kg	3/27/96	8270
Diethylphthalate	< 100	ug/kg	3/27/96	8270
4-Chlorophenyl-phenylethe	< 100	ug/kg	3/27/96	8270
Fluorene	< 100	ug/kg	3/27/96	8270
4-Nitroaniline	< 250	ug/kg	3/27/96	8270
4,6-Dinitro-2-Methylpheno	< 250	ug/kg	3/27/96	8270
N-Nitrosodiphenylamine	170	ug/kg	3/27/96	8270
4-Bromophenyl-phenylether	< 100	ug/kg	3/27/96	8270
Hexachlorobenzene	< 100	ug/kg	3/27/96	8270
Pentachlorophenol	< 250	ug/kg	3/27/96	8270
Phenanthrene	760	ug/kg	3/27/96	8270
Anthrancene	< 100	ug/kg	3/27/96	8270
Di-n-Butylphthalate	1,200	ug/kg	3/27/96	8270
Fluoranthene	560	ug/kg	3/27/96	8270
Pyrene	610	ug/kg	3/27/96	8270
Butylbenzylphthalate	1,600	ug/kg	3/27/96	8270
3-3'-Dichlorobenzidine	< 250	ug/kg	3/27/96	8270
Benzo(a)anthracene	380	ug/kg	3/27/96	8270
Chrysene	440	ug/kg	3/27/96	8270
bis(2-ethylhexyl)phthalat	110	ug/kg	3/27/96	8270
Di-n-Octylphthalate	< 100	ug/kg	3/27/96	8270
Benzo(b)fluoranthene	500	ug/kg	3/27/96	8270
Benzo(k)fluoranthene	160	ug/kg	3/27/96	8270
Benzo(a)pyrene	320	ug/kg	3/27/96	8270
Indeno(1,2,3-cd)pyrene	390	ug/kg	3/27/96	8270
Dibenz(a,h)anthracene	< 100	ug/kg	3/27/96	8270
Benzo(g,h,i)perylene	430	ug/kg	3/27/96	8270

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency.

James H. Long, Director
Environmental Services Program
Division of Environmental Quality

c: KATHY FLIPPIN, HWP

STATE OF MISSOURI
Mel Carnahan, Governor • David A. Shorr, Director
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176 Jefferson City, MO 65102-0176

ENVIRONMENTAL SERVICES PROGRAM

RESULTS OF SAMPLE ANALYSES

Sample Number: 96-1379
Lab Number: 96-D643

Reported To: JOE BOLAND
Affiliation: FSS
Project Code: 3531/3354

Report Date: 4/ 3/96
Date Collected: 3/13/96
Date Received: 3/14/96

Sample Collected by: JOE BOLAND, FSS
Sampling Location: CHEMICAL RECOVERY, KANSAS CITY, MO,
Sample Description: SOIL GRAB, FROM DIRT PILE ON EAST SIDE OF BLDG, 2' DEEP, BORING #2

Analysis Performed	Results		Analyzed	Method
Silver, Total	< 2,500	ug/kg	3/25/96	200.7
Chromium, Total	34,700	ug/kg	3/25/96	200.7
Copper, Total	19,900	ug/kg	3/25/96	200.7
Nickel, Total	19,600	ug/kg	3/25/96	200.7
Lead, Total	137,000	ug/kg	3/25/96	239.2

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency.

James H. Long, Director
Environmental Services Program
Division of Environmental Quality

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STATE OF MISSOURI
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DEPARTMENT OF NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176 Jefferson City, MO 65102-0176

ENVIRONMENTAL SERVICES PROGRAM

RESULTS OF SAMPLE ANALYSES

Sample Number: 96-1380
Lab Number: 96-D645

Reported To: JOE BOLAND
Affiliation: FSS
Project Code: 3531/3354

Report Date: 4/ 8/96
Date Collected: 3/13/96
Date Received: 3/14/96

Sample Collected by: JOE BOLAND, FSS
Sampling Location: CHEMICAL RECOVERY, KANSAS CITY, MO,
Sample Description: SOIL GRAB FROM EAST SIDE OF BLDG, NEXT TO TRAILER, 1' DEEP

Analysis Performed	Results		Analyzed	Method
Silver, Total	< 2,500	ug/kg	3/25/96	200.7
Chromium, Total	19,400	ug/kg	3/25/96	200.7
Copper, Total	100,000	ug/kg	3/25/96	200.7
Nickel, Total	14,200	ug/kg	3/25/96	200.7
Lead, Total	812,000	ug/kg	3/25/96	239.2
VOA Results:				
Chloromethane	< 25.0	ug/kg	4/ 1/96	8260
Vinyl Chloride	< 25.0	ug/kg	4/ 1/96	8260
Bromomethane	< 25.0	ug/kg	4/ 1/96	8260
Chloroethane	< 25.0	ug/kg	4/ 1/96	8260
1,1-Dichloroethene	< 25.0	ug/kg	4/ 1/96	8260
Acetone	< 100	ug/kg	4/ 1/96	8260
Carbon Disulfide	< 25.0	ug/kg	4/ 1/96	8260
Methylene Chloride	< 25.0	ug/kg	4/ 1/96	8260
Methyl Tertiary Butyl Eth	< 25.0	ug/kg	4/ 1/96	8260
trans-1,2-Dichloroethene	< 25.0	ug/kg	4/ 1/96	8260
1,1-Dichloroethane	< 25.0	ug/kg	4/ 1/96	8260
2-Butanone	< 100	ug/kg	4/ 1/96	8260
cis-1,2-Dichloroethene	< 25.0	ug/kg	4/ 1/96	8260
Chloroform	< 25.0	ug/kg	4/ 1/96	8260
1,1,1-Trichloroethane	< 25.0	ug/kg	4/ 1/96	8260
Carbon Tetrachloride	< 25.0	ug/kg	4/ 1/96	8260
Benzene	< 25.0	ug/kg	4/ 1/96	8260
1,2-Dichloroethane	< 25.0	ug/kg	4/ 1/96	8260
Trichloroethene	< 25.0	ug/kg	4/ 1/96	8260

Lab Number: 96-D645
Sample Number: 96-1380
April 8, 1996

Analysis Performed	Results		Analyzed	Method
1,2-Dichloropropane	< 25.0	ug/kg	4/ 1/96	8260
Bromodichloromethane	< 25.0	ug/kg	4/ 1/96	8260
2-Hexanone	< 100	ug/kg	4/ 1/96	8260
Trans-1,3-Dichloropropene	< 25.0	ug/kg	4/ 1/96	8260
Toluene	< 25.0	ug/kg	4/ 1/96	8260
CIS-1,3-Dichloropropene	< 25.0	ug/kg	4/ 1/96	8260
1,1,2-Trichloroethane	< 25.0	ug/kg	4/ 1/96	8260
4-Methyl-2-Pentanone	< 100	ug/kg	4/ 1/96	8260
Tetrachloroethene	< 25.0	ug/kg	4/ 1/96	8260
Dibromochloromethane	< 25.0	ug/kg	4/ 1/96	8260
Chlorobenzene	< 25.0	ug/kg	4/ 1/96	8260
Ethylbenzene	< 25.0	ug/kg	4/ 1/96	8260
Total Xylenes	< 25.0	ug/kg	4/ 1/96	8260
Styrene	< 25.0	ug/kg	4/ 1/96	8260
Bromoform	< 25.0	ug/kg	4/ 1/96	8260
1,1,2,2-Tetrachloroethane	< 25.0	ug/kg	4/ 1/96	8260
1,3-Dichlorobenzene	< 25.0	ug/kg	4/ 1/96	8260
1,4-Dichlorobenzene	< 25.0	ug/kg	4/ 1/96	8260
1,2-Dichlorobenzene	< 25.0	ug/kg	4/ 1/96	8260
BNA Results:				
Phenol	< 100	ug/kg	3/27/96	8270
bis(-2-Chloroethyl)Ether	< 100	ug/kg	3/27/96	8270
2-Chlorophenol	< 250	ug/kg	3/27/96	8270
1,3-Dichlorobenzene	< 100	ug/kg	3/27/96	8270
1,4-Dichlorobenzene	< 100	ug/kg	3/27/96	8270
N-nitrosodimethylamine	< 100	ug/kg	3/27/96	8270
1,2-Dichlorobenzene	< 100	ug/kg	3/27/96	8270
2-Methylphenol	< 100	ug/kg	3/27/96	8270
bis(2-Chloroisopropyl)Eth	< 100	ug/kg	3/27/96	8270
4-Methylphenol	< 100	ug/kg	3/27/96	8270
N-Nitro-Di-n-Propylamine	< 100	ug/kg	3/27/96	8270
Hexachloroethane	< 100	ug/kg	3/27/96	8270
Nitrobenzene	< 100	ug/kg	3/27/96	8270
Isophorone	< 100	ug/kg	3/27/96	8270
2-Nitrophenol	< 100	ug/kg	3/27/96	8270
2,4-Dimethylphenol	< 100	ug/kg	3/27/96	8270
Benzoic Acid	< 100	ug/kg	3/27/96	8270
bis(2-Chloroethoxy)Methan	< 100	ug/kg	3/27/96	8270
2,4-Dichlorophenol	< 100	ug/kg	3/27/96	8270
1,2,4-Trichlorobenzene	< 100	ug/kg	3/27/96	8270
Naphthalene	120	ug/kg	3/27/96	8270
4-Chloroaniline	< 250	ug/kg	3/27/96	8270
Hexachlorobutadiene	< 100	ug/kg	3/27/96	8270
4-Chloro-3-Methylphenol	< 250	ug/kg	3/27/96	8270
2-Methylnaphthalene	150	ug/kg	3/27/96	8270
Hexachlorocyclopentadiene	< 100	ug/kg	3/27/96	8270
2,4,6-Trichlorophenol	< 100	ug/kg	3/27/96	8270
2,4,5-Trichlorophenol	< 250	ug/kg	3/27/96	8270

Analysis Performed	Results		Analyzed	Method
2-Chloronaphthalene	< 100	ug/kg	3/27/96	8270
2-Nitroaniline	< 250	ug/kg	3/27/96	8270
Dimethylphthalate	< 100	ug/kg	3/27/96	8270
Acenaphthylene	< 100	ug/kg	3/27/96	8270
2,6-Dinitrotoluene	< 100	ug/kg	3/27/96	8270
3-Nitroaniline	< 250	ug/kg	3/27/96	8270
Acenaphthene	100	ug/kg	3/27/96	8270
2,4-Dinitrophenol	< 250	ug/kg	3/27/96	8270
4-Nitrophenol	< 250	ug/kg	3/27/96	8270
Dibenzofuran	< 100	ug/kg	3/27/96	8270
2,4-Dinitrotoluene	< 100	ug/kg	3/27/96	8270
Diethylphthalate	< 100	ug/kg	3/27/96	8270
4-Chlorophenyl-phenylethe	< 100	ug/kg	3/27/96	8270
Fluorene	< 100	ug/kg	3/27/96	8270
4-Nitroaniline	< 250	ug/kg	3/27/96	8270
4,6-Dinitro-2-Methylpheno	< 250	ug/kg	3/27/96	8270
N-Nitrosodiphenylamine	< 100	ug/kg	3/27/96	8270
4-Bromophenyl-phenylether	< 100	ug/kg	3/27/96	8270
Hexachlorobenzene	< 100	ug/kg	3/27/96	8270
Pentachlorophenol	< 250	ug/kg	3/27/96	8270
Phenanthrene	750	ug/kg	3/27/96	8270
Anthrancene	100	ug/kg	3/27/96	8270
Di-n-Butylphthalate	1,400	ug/kg	3/27/96	8270
Fluoranthene	1,600	ug/kg	3/27/96	8270
Pyrene	1,500	ug/kg	3/27/96	8270
Butylbenzylphthalate	200	ug/kg	3/27/96	8270
3-3'-Dichlorobenzidine	< 250	ug/kg	3/27/96	8270
Benzo(a)anthracene	1,100	ug/kg	3/27/96	8270
Chrysene	1,200	ug/kg	3/27/96	8270
bis(2-ethylhexyl)phthalat	100	ug/kg	3/27/96	8270
Di-n-Octylphthalate	< 100	ug/kg	3/27/96	8270
Benzo(b)fluoranthene	1,800	ug/kg	3/27/96	8270
Benzo(k)fluoranthene	530	ug/kg	3/27/96	8270
Benzo(a)pyrene	1,100	ug/kg	3/27/96	8270
Indeno(1,2,3-cd)pyrene	< 100	ug/kg	3/27/96	8270
Dibenz(a,h)anthracene	230	ug/kg	3/27/96	8270
Benzo(g,h,i)perylene	< 100	ug/kg	3/27/96	8270

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency.

James H. Long, Director
Environmental Services Program
Division of ~~Environmental~~ Quality

c: KATHY FLIPPIN, HWP

STATE OF MISSOURI
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DEPARTMENT OF NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176 Jefferson City, MO 65102-0176

ENVIRONMENTAL SERVICES PROGRAM

RESULTS OF SAMPLE ANALYSES

Sample Number: 96-1381
Lab Number: 96-D646

Reported To: JOE BOLAND
Affiliation: FSS
Project Code: 3531/3354

Report Date: 4/ 5/96
Date Collected: 3/13/96
Date Received: 3/14/96

Sample Collected by: JOE BOLAND, FSS
Sampling Location: CHEMICAL RECOVERY, KANSAS CITY, MO,
Sample Description: SOIL GRAB FROM EAST SIDE OF BLDG
NEXT TO TRAILER, 1' DEEP, DUPLICATE

Analysis Performed	Results		Analyzed	Method
Silver, Total	< 2,500	ug/kg	3/25/96	200.7
Chromium, Total	25,400	ug/kg	3/25/96	200.7
Copper, Total	155,000	ug/kg	3/25/96	200.7
Nickel, Total	20,300	ug/kg	3/25/96	200.7
Lead, Total	878,000	ug/kg	3/25/96	239.2
VOA Results:				
Chloromethane	< 25.0	ug/kg	3/23/96	8260
Vinyl Chloride	< 25.0	ug/kg	3/23/96	8260
Bromomethane	< 25.0	ug/kg	3/23/96	8260
Chloroethane	< 25.0	ug/kg	3/23/96	8260
1,1-Dichloroethene	< 25.0	ug/kg	3/23/96	8260
Acetone	< 100	ug/kg	3/23/96	8260
Carbon Disulfide	< 25.0	ug/kg	3/23/96	8260
Methylene Chloride	Not Analyzed		3/23/96	8260
Methyl Tertiary Butyl Eth	< 25.0	ug/kg	3/23/96	8260
trans-1,2-Dichloroethene	< 25.0	ug/kg	3/23/96	8260
1,1-Dichloroethane	< 25.0	ug/kg	3/23/96	8260
2-Butanone	< 100	ug/kg	3/23/96	8260
cis-1,2-Dichloroethene	< 25.0	ug/kg	3/23/96	8260
Chloroform	< 25.0	ug/kg	3/23/96	8260
1,1,1-Trichloroethane	< 25.0	ug/kg	3/23/96	8260
Carbon Tetrachloride	< 25.0	ug/kg	3/23/96	8260
Benzene	< 25.0	ug/kg	3/23/96	8260
1,2-Dichloroethane	< 25.0	ug/kg	3/23/96	8260
Trichloroethene	< 25.0	ug/kg	3/23/96	8260

Analysis Performed	Results		Analyzed	Method
1,2-Dichloropropane	< 25.0	ug/kg	3/23/96	8260
Bromodichloromethane	< 25.0	ug/kg	3/23/96	8260
2-Hexanone	< 100	ug/kg	3/23/96	8260
Trans-1,3-Dichloropropene	< 25.0	ug/kg	3/23/96	8260
Toluene	< 25.0	ug/kg	3/23/96	8260
CIS-1,3-Dichloropropene	< 25.0	ug/kg	3/23/96	8260
1,1,2-Trichloroethane	< 25.0	ug/kg	3/23/96	8260
4-Methyl-2-Pentanone	< 100	ug/kg	3/23/96	8260
Tetrachloroethene	< 25.0	ug/kg	3/23/96	8260
Dibromochloromethane	< 25.0	ug/kg	3/23/96	8260
Chlorobenzene	< 25.0	ug/kg	3/23/96	8260
Ethylbenzene	< 25.0	ug/kg	3/23/96	8260
Total Xylenes	< 25.0	ug/kg	3/23/96	8260
Styrene	< 25.0	ug/kg	3/23/96	8260
Bromoform	< 25.0	ug/kg	3/23/96	8260
1,1,2,2-Tetrachloroethane	< 25.0	ug/kg	3/23/96	8260
1,3-Dichlorobenzene	< 25.0	ug/kg	3/23/96	8260
1,4-Dichlorobenzene	< 25.0	ug/kg	3/23/96	8260
1,2-Dichlorobenzene	< 25.0	ug/kg	3/23/96	8260
BNA Results:				
Phenol	< 100	ug/kg	3/27/96	8270
bis(-2-Chloroethyl)Ether	< 100	ug/kg	3/27/96	8270
2-Chlorophenol	< 250	ug/kg	3/27/96	8270
1,3-Dichlorobenzene	< 100	ug/kg	3/27/96	8270
1,4-Dichlorobenzene	< 100	ug/kg	3/27/96	8270
N-nitrosodimethylamine	< 100	ug/kg	3/27/96	8270
1,2-Dichlorobenzene	< 100	ug/kg	3/27/96	8270
2-Methylphenol	< 100	ug/kg	3/27/96	8270
bis(2-Chloroisopropyl)Eth	< 100	ug/kg	3/27/96	8270
4-Methylphenol	< 100	ug/kg	3/27/96	8270
N-Nitro-Di-n-Propylamine	< 100	ug/kg	3/27/96	8270
Hexachloroethane	< 100	ug/kg	3/27/96	8270
Nitrobenzene	< 100	ug/kg	3/27/96	8270
Isophorone	< 100	ug/kg	3/27/96	8270
2-Nitrophenol	< 100	ug/kg	3/27/96	8270
2,4-Dimethylphenol	< 100	ug/kg	3/27/96	8270
Benzoic Acid	< 100	ug/kg	3/27/96	8270
bis(2-Chloroethoxy)Methan	< 100	ug/kg	3/27/96	8270
2,4-Dichlorophenol	< 100	ug/kg	3/27/96	8270
1,2,4-Trichlorobenzene	< 100	ug/kg	3/27/96	8270
Naphthalene	110	ug/kg	3/27/96	8270
4-Chloroaniline	< 250	ug/kg	3/27/96	8270
Hexachlorobutadiene	< 100	ug/kg	3/27/96	8270
4-Chloro-3-Methylphenol	< 250	ug/kg	3/27/96	8270
2-Methylnaphthalene	140	ug/kg	3/27/96	8270
Hexachlorocyclopentadiene	< 100	ug/kg	3/27/96	8270
2,4,6-Trichlorophenol	< 100	ug/kg	3/27/96	8270
2,4,5-Trichlorophenol	< 250	ug/kg	3/27/96	8270

Lab Number: 96-D646
Sample Number: 96-1381
April 5, 1996

Analysis Performed	Results		Analyzed	Method
2-Chloronaphthalene	< 100	ug/kg	3/27/96	8270
2-Nitroaniline	< 250	ug/kg	3/27/96	8270
Dimethylphthalate	< 100	ug/kg	3/27/96	8270
Acenaphthylene	< 100	ug/kg	3/27/96	8270
2,6-Dinitrotoluene	< 100	ug/kg	3/27/96	8270
3-Nitroaniline	< 250	ug/kg	3/27/96	8270
Acenaphthene	< 100	ug/kg	3/27/96	8270
2,4-Dinitrophenol	< 250	ug/kg	3/27/96	8270
4-Nitrophenol	< 250	ug/kg	3/27/96	8270
Dibenzofuran	< 100	ug/kg	3/27/96	8270
2,4-Dinitrotoluene	< 100	ug/kg	3/27/96	8270
Diethylphthalate	< 100	ug/kg	3/27/96	8270
4-Chlorophenyl-phenylethe	< 100	ug/kg	3/27/96	8270
Fluorene	< 100	ug/kg	3/27/96	8270
4-Nitroaniline	< 250	ug/kg	3/27/96	8270
4,6-Dinitro-2-Methylpheno	< 250	ug/kg	3/27/96	8270
N-Nitrosodiphenylamine	< 100	ug/kg	3/27/96	8270
4-Bromophenyl-phenylether	< 100	ug/kg	3/27/96	8270
Hexachlorobenzene	< 100	ug/kg	3/27/96	8270
Pentachlorophenol	< 250	ug/kg	3/27/96	8270
Phenanthrene	400	ug/kg	3/27/96	8270
Anthrancene	< 100	ug/kg	3/27/96	8270
Di-n-Butylphthalate	2,100	ug/kg	3/27/96	8270
Fluoranthene	1,100	ug/kg	3/27/96	8270
Pyrene	1,200	ug/kg	3/27/96	8270
Butylbenzylphthalate	100	ug/kg	3/27/96	8270
3-3'-Dichlorobenzidine	< 250	ug/kg	3/27/96	8270
Benzo(a)anthracene	1,000	ug/kg	3/27/96	8270
Chrysene	1,200	ug/kg	3/27/96	8270
bis(2-ethylhexyl)phthalat	< 100	ug/kg	3/27/96	8270
Di-n-Octylphthalate	< 100	ug/kg	3/27/96	8270
Benzo(b)fluoranthene	1,800	ug/kg	3/27/96	8270
Benzo(k)fluoranthene	460	ug/kg	3/27/96	8270
Benzo(a)pyrene	1,300	ug/kg	3/27/96	8270
Indeno(1,2,3-cd)pyrene	1,300	ug/kg	3/27/96	8270
Dibenz(a,h)anthracene	300	ug/kg	3/27/96	8270
Benzo(g,h,i)perylene	1,100	ug/kg	3/27/96	8270

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency.

James H. Long, Director
Environmental Services Program
Division of Environmental Quality

c: KATHY FLIPPIN, HWP

STATE OF MISSOURI
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DEPARTMENT OF NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176 Jefferson City, MO 65102-0176

ENVIRONMENTAL SERVICES PROGRAM

RESULTS OF SAMPLE ANALYSES

Sample Number: 96-1382
Lab Number: 96-D647

Reported To: JOE BOLAND
Affiliation: FSS
Project Code: 3531/3354

Report Date: 4/ 8/96
Date Collected: 3/13/96
Date Received: 3/14/96

Sample Collected by: JOE BOLAND, FSS
Sampling Location: CHEMICAL RECOVERY, KANSAS CITY, MO,
Sample Description: SOIL TRIP BLANK

Analysis Performed	Results		Analyzed	Method
VOA Results:				
Chloromethane	< 25.0	ug/kg	3/29/96	8260
Vinyl Chloride	< 25.0	ug/kg	3/29/96	8260
Bromomethane	< 25.0	ug/kg	3/29/96	8260
Chloroethane	< 25.0	ug/kg	3/29/96	8260
1,1-Dichloroethene	< 25.0	ug/kg	3/29/96	8260
Acetone	< 100	ug/kg	3/29/96	8260
Carbon Disulfide	< 25.0	ug/kg	3/29/96	8260
Methylene Chloride	Not Analyzed		3/29/96	8260
Methyl Tertiary Butyl Eth	34.0	ug/kg	3/29/96	8260
trans-1,2-Dichloroethene	< 25.0	ug/kg	3/29/96	8260
1,1-Dichloroethane	< 25.0	ug/kg	3/29/96	8260
2-Butanone	< 100	ug/kg	3/29/96	8260
cis-1,2-Dichloroethene	< 25.0	ug/kg	3/29/96	8260
Chloroform	< 25.0	ug/kg	3/29/96	8260
1,1,1-Trichloroethane	< 25.0	ug/kg	3/29/96	8260
Carbon Tetrachloride	< 25.0	ug/kg	3/29/96	8260
Benzene	99.0	ug/kg	3/29/96	8260
1,2-Dichloroethane	< 25.0	ug/kg	3/29/96	8260
Trichloroethene	< 25.0	ug/kg	3/29/96	8260
1,2-Dichloropropane	< 25.0	ug/kg	3/29/96	8260
Bromodichloromethane	< 25.0	ug/kg	3/29/96	8260
2-Hexanone	< 100	ug/kg	3/29/96	8260
Trans-1,3-Dichloropropene	< 25.0	ug/kg	3/29/96	8260
Toluene	32.0	ug/kg	3/29/96	8260
CIS-1,3-Dichloropropene	< 25.0	ug/kg	3/29/96	8260

Analysis Performed	Results		Analyzed	Method
1,1,2-Trichloroethane	< 25.0	ug/kg	3/29/96	8260
4-Methyl-2-Pentanone	< 100	ug/kg	3/29/96	8260
Tetrachloroethene	< 25.0	ug/kg	3/29/96	8260
Dibromochloromethane	< 25.0	ug/kg	3/29/96	8260
Chlorobenzene	< 25.0	ug/kg	3/29/96	8260
Ethylbenzene	< 25.0	ug/kg	3/29/96	8260
Total Xylenes	< 25.0	ug/kg	3/29/96	8260
Styrene	< 25.0	ug/kg	3/29/96	8260
Bromoform	< 25.0	ug/kg	3/29/96	8260
1,1,2,2-Tetrachloroethane	< 25.0	ug/kg	3/29/96	8260
1,3-Dichlorobenzene	< 25.0	ug/kg	3/29/96	8260
1,4-Dichlorobenzene	< 25.0	ug/kg	3/29/96	8260
1,2-Dichlorobenzene	< 25.0	ug/kg	3/29/96	8260

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency.

James H. Long, Director
Environmental Services Program
Division of Environmental Quality

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P.O. Box 176 Jefferson City, MO 65102-0176

ENVIRONMENTAL SERVICES PROGRAM

RESULTS OF SAMPLE ANALYSES

Sample Number: 96-1383
Lab Number: 96-D650

Reported To: JOE BOLAND
Affiliation: FSS
Project Code: 3531/3354

Report Date: 4/ 8/96
Date Collected: 3/13/96
Date Received: 3/14/96

Sample Collected by: JOE BOLAND, FSS
Sampling Location: CHEMICAL RECOVERY, KANSAS CITY, MO,
Sample Description: SOIL FIELD BLANK

Analysis Performed	Results		Analyzed	Method
VOA Results:				
Chloromethane	< 25.0	ug/kg	3/29/96	8260
Vinyl Chloride	< 25.0	ug/kg	3/29/96	8260
Bromomethane	< 25.0	ug/kg	3/29/96	8260
Chloroethane	< 25.0	ug/kg	3/29/96	8260
1,1-Dichloroethene	< 25.0	ug/kg	3/29/96	8260
Acetone	< 100	ug/kg	3/29/96	8260
Carbon Disulfide	< 25.0	ug/kg	3/29/96	8260
Methylene Chloride	Not Analyzed		3/29/96	8260
Methyl Tertiary Butyl Eth	< 25.0	ug/kg	3/29/96	8260
trans-1,2-Dichloroethene	< 25.0	ug/kg	3/29/96	8260
1,1-Dichloroethane	< 25.0	ug/kg	3/29/96	8260
2-Butanone	Not Analyzed		3/29/96	8260
cis-1,2-Dichloroethene	< 25.0	ug/kg	3/29/96	8260
Chloroform	< 25.0	ug/kg	3/29/96	8260
1,1,1-Trichloroethane	< 25.0	ug/kg	3/29/96	8260
Carbon Tetrachloride	< 25.0	ug/kg	3/29/96	8260
Benzene	98.0	ug/kg	3/29/96	8260
1,2-Dichloroethane	< 25.0	ug/kg	3/29/96	8260
Trichloroethene	< 25.0	ug/kg	3/29/96	8260
1,2-Dichloropropane	< 25.0	ug/kg	3/29/96	8260
Bromodichloromethane	< 25.0	ug/kg	3/29/96	8260
2-Hexanone	< 100	ug/kg	3/29/96	8260
Trans-1,3-Dichloropropene	< 25.0	ug/kg	3/29/96	8260
Toluene	70.0	ug/kg	3/29/96	8260
CIS-1,3-Dichloropropene	< 25.0	ug/kg	3/29/96	8260

Analysis Performed	Results		Analyzed	Method
1,1,2-Trichloroethane	< 25.0	ug/kg	3/29/96	8260
4-Methyl-2-Pentanone	< 100	ug/kg	3/29/96	8260
Tetrachloroethene	< 25.0	ug/kg	3/29/96	8260
Dibromochloromethane	< 25.0	ug/kg	3/29/96	8260
Chlorobenzene	< 25.0	ug/kg	3/29/96	8260
Ethylbenzene	< 25.0	ug/kg	3/29/96	8260
Total Xylenes	< 25.0	ug/kg	3/29/96	8260
Styrene	< 25.0	ug/kg	3/29/96	8260
Bromoform	< 25.0	ug/kg	3/29/96	8260
1,1,2,2-Tetrachloroethane	< 25.0	ug/kg	3/29/96	8260
1,3-Dichlorobenzene	< 25.0	ug/kg	3/29/96	8260
1,4-Dichlorobenzene	< 25.0	ug/kg	3/29/96	8260
1,2-Dichlorobenzene	< 25.0	ug/kg	3/29/96	8260

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency.

James H. Long, Director
Environmental Services Program
Division of Environmental Quality

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DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176 Jefferson City, MO 65102-0176

ENVIRONMENTAL SERVICES PROGRAM

RESULTS OF SAMPLE ANALYSES

Sample Number: 96-1384
Lab Number: 96-D652

Reported To: JOE BOLAND
Affiliation: FSS
Project Code: 3531/3354

Report Date: 4/ 8/96
Date Collected: 3/13/96
Date Received: 3/14/96

Sample Collected by: JOE BOLAND, FSS
Sampling Location: CHEMICAL RECOVERY, KANSAS CITY, MO,
Sample Description: WATER, EQUIPMENT BLANK FROM BUCKET AUGER

Analysis Performed	Results		Analyzed	Method
Silver, Total	< 5.00	ug/L	4/ 2/96	200.7
Chromium, Total	< 2.00	ug/L	4/ 2/96	200.7
Copper, Total	< 10.0	ug/L	4/ 2/96	200.7
Nickel, Total	< 3.00	ug/L	4/ 2/96	200.7
Lead, Total	< 5.0	ug/L	4/ 2/96	239.2
VOA Results:				
Chloromethane	< 5.0	ug/L	3/20/96	8260
Vinyl Chloride	< 5.0	ug/L	3/20/96	8260
Bromomethane	< 5.0	ug/L	3/20/96	8260
Chloroethane	< 5.0	ug/L	3/20/96	8260
1,1-Dichloroethene	< 5.0	ug/L	3/20/96	8260
Acetone	< 20.0	ug/L	3/20/96	8260
Carbon Disulfide	< 5.0	ug/L	3/20/96	8260
Methylene Chloride	< 5.0	ug/L	3/20/96	8260
Methyl Tert-Butyl Ether	< 5.0	ug/L	3/20/96	8260
trans-1,2-Dichloroethene	< 5.0	ug/L	3/20/96	8260
1,1-Dichloroethane	< 5.0	ug/L	3/20/96	8260
2-Butanone	< 20.0	ug/L	3/20/96	8260
cis-1,2-Dichloroethene	< 5.0	ug/L	3/20/96	8260
Chloroform	< 5.0	ug/L	3/20/96	8260
1,1,1-Trichloroethane	< 5.0	ug/L	3/20/96	8260
Carbon Tetrachloride	< 5.0	ug/L	3/20/96	8260
Benzene	< 5.0	ug/L	3/20/96	8260
1,2-Dichloroethane	< 5.0	ug/L	3/20/96	8260
Trichloroethene	< 5.0	ug/L	3/20/96	8260

Lab Number: 96-D652
Sample Number: 96-1384
April 8, 1996

Analysis Performed	Results		Analyzed	Method
1,2-Dichloropropane	< 5.0	ug/L	3/20/96	8260
Bromodichloromethane	< 5.0	ug/L	3/20/96	8260
2-Hexanone	< 20.0	ug/L	3/20/96	8260
Trans-1,3-Dichloropropene	< 5.0	ug/L	3/20/96	8260
Toluene	< 5.0	ug/L	3/20/96	8260
CIS-1,3-Dichloropropene	< 5.0	ug/L	3/20/96	8260
1,1,2-Trichloroethane	< 5.0	ug/L	3/20/96	8260
4-Methyl-2-Pentanone	< 20.0	ug/L	3/20/96	8260
Tetrachloroethene	< 5.0	ug/L	3/20/96	8260
Dibromochloromethane	< 5.0	ug/L	3/20/96	8260
Chlorobenzene	< 5.0	ug/L	3/20/96	8260
Ethylbenzene	< 5.0	ug/L	3/20/96	8260
Total Xylenes	< 5.0	ug/L	3/20/96	8260
Styrene	< 5.0	ug/L	3/20/96	8260
Bromoform	< 5.0	ug/L	3/20/96	8260
1,1,2,2-Tetrachloroethane	< 5.0	ug/L	3/20/96	8260
1,3-Dichlorobenzene	< 5.0	ug/L	3/20/96	8260
1,4-Dichlorobenzene	< 5.0	ug/L	3/20/96	8260
1,2-Dichlorobenzene	< 5.0	ug/L	3/20/96	8260
BNA Results:				
Phenol	< 2.0	ug/L	3/27/96	8270
bis(-2-Chloroethyl)Ether	< 2.0	ug/L	3/27/96	8270
2-Chlorophenol	< 5.0	ug/L	3/27/96	8270
1,3-Dichlorobenzene	< 2.0	ug/L	3/27/96	8270
1,4-Dichlorobenzene	< 2.0	ug/L	3/27/96	8270
N-nitrosodimethylamine	< 2.0	ug/L	3/27/96	8270
1,2-Dichlorobenzene	< 2.0	ug/L	3/27/96	8270
2-Methylphenol	< 2.0	ug/L	3/27/96	8270
bis(2-Chloroisopropyl)Eth	< 2.0	ug/L	3/27/96	8270
4-Methylphenol	< 2.0	ug/L	3/27/96	8270
N-Nitro-Di-n-Propylamine	< 2.0	ug/L	3/27/96	8270
Hexachloroethane	< 2.0	ug/L	3/27/96	8270
Nitrobenzene	< 2.0	ug/L	3/27/96	8270
Isophorone	< 2.0	ug/L	3/27/96	8270
2-Nitrophenol	< 2.0	ug/L	3/27/96	8270
2,4-Dimethylphenol	< 2.0	ug/L	3/27/96	8270
Benzoic Acid	< 2.0	ug/L	3/27/96	8270
bis(2-Chloroethoxy)Methan	< 2.0	ug/L	3/27/96	8270
2,4-Dichlorophenol	< 2.0	ug/L	3/27/96	8270
1,2,4-Trichlorobenzene	< 2.0	ug/L	3/27/96	8270
Naphthalene	< 2.0	ug/L	3/27/96	8270
4-Chloroaniline	< 5.0	ug/L	3/27/96	8270
Hexachlorobutadiene	< 2.0	ug/L	3/27/96	8270
4-Chloro-3-Methylphenol	< 5.0	ug/L	3/27/96	8270
2-Methylnaphthalene	< 2.0	ug/L	3/27/96	8270
Hexachlorocyclopentadiene	< 2.0	ug/L	3/27/96	8270
2,4,6-Trichlorophenol	< 2.0	ug/L	3/27/96	8270
2,4,5-Trichlorophenol	< 5.0	ug/L	3/27/96	8270

Lab Number: 96-D652
Sample Number: 96-1384
April 8, 1996

Analysis Performed	Results		Analyzed	Method
2-Chloronaphthalene	< 2.0	ug/L	3/27/96	8270
2-Nitroaniline	< 5.0	ug/L	3/27/96	8270
Dimethylphthalate	< 2.0	ug/L	3/27/96	8270
Acenaphthylene	< 2.0	ug/L	3/27/96	8270
2,6-Dinitrotoluene	< 2.0	ug/L	3/27/96	8270
3-Nitroaniline	< 5.0	ug/L	3/27/96	8270
Acenaphthene	< 2.0	ug/L	3/27/96	8270
2,4-Dinitrophenol	< 5.0	ug/L	3/27/96	8270
4-Nitrophenol	< 5.0	ug/L	3/27/96	8270
Dibenzofuran	< 2.0	ug/L	3/27/96	8270
2,4-Dinitrotoluene	< 2.0	ug/L	3/27/96	8270
Diethylphthalate	< 2.0	ug/L	3/27/96	8270
4-Chlorophenyl-phenylethe	< 2.0	ug/L	3/27/96	8270
Fluorene	< 2.0	ug/L	3/27/96	8270
4-Nitroaniline	< 5.0	ug/L	3/27/96	8270
4,6-Dinitro-2-Methylpheno	< 5.0	ug/L	3/27/96	8270
N-Nitrosodiphenylamine	< 2.0	ug/L	3/27/96	8270
4-Bromophenyl-phenylether	< 2.0	ug/L	3/27/96	8270
Hexachlorobenzene	< 2.0	ug/L	3/27/96	8270
Pentachlorophenol	< 5.0	ug/L	3/27/96	8270
Phenanthrene	< 2.0	ug/L	3/27/96	8270
Anthrancene	< 2.0	ug/L	3/27/96	8270
Di-n-Butylphthalate	< 2.0	ug/L	3/27/96	8270
Fluoranthene	< 2.0	ug/L	3/27/96	8270
Pyrene	< 2.0	ug/L	3/27/96	8270
Butylbenzylphthalate	< 2.0	ug/L	3/27/96	8270
3-3'-Dichlorobenzidine	< 5.0	ug/L	3/27/96	8270
Benzo(a)anthracene	< 2.0	ug/L	3/27/96	8270
Chrysene	< 2.0	ug/L	3/27/96	8270
bis(2-ethylhexyl)phthalat	< 2.0	ug/L	3/27/96	8270
Di-n-Octylphthalate	< 2.0	ug/L	3/27/96	8270
Benzo(b)fluoranthene	< 2.0	ug/L	3/27/96	8270
Benzo(k)fluoranthene	< 2.0	ug/L	3/27/96	8270
Benzo(a)pyrene	< 2.0	ug/L	3/27/96	8270
Indeno(1,2,3-cd)pyrene	< 2.0	ug/L	3/27/96	8270
Dibenz(a,h)anthracene	< 2.0	ug/L	3/27/96	8270
Benzo(g,h,i)perylene	< 2.0	ug/L	3/27/96	8270

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency.

James H. Long, Director
Environmental Services Program
Division of ~~Environm~~ental Quality

c: KATHY FLIPPIN, HWP

STATE OF MISSOURI
Mel Carnahan, Governor • David A. Shorr, Director
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176 Jefferson City, MO 65102-0176

ENVIRONMENTAL SERVICES PROGRAM

RESULTS OF SAMPLE ANALYSES

Sample Number: 96-0123
Lab Number: 96-D1347

Reported To: JOE BOLAND
Affiliation: ESP
Project Code: 3531/3000

Report Date: 6/ 3/96
Date Collected: 3/10/96
Date Received: 3/10/96

Sample Collected by: CURTIS LUECKENHOFF, ESP
Sampling Location: BIG TAVERN CREEK
Sample Description: SOILS USED FOR BLANKS BEFORE BEING HEATED

Analysis Performed	Results		Analyzed	Method
VOA Results:				
Chloromethane	< 25.0	ug/kg	4/24/96	8260
Vinyl Chloride	< 25.0	ug/kg	4/24/96	8260
Bromomethane	< 25.0	ug/kg	4/24/96	8260
Chloroethane	< 25.0	ug/kg	4/24/96	8260
1,1-Dichloroethene	< 25.0	ug/kg	4/24/96	8260
Acetone	< 100	ug/kg	4/24/96	8260
Carbon Disulfide	< 25.0	ug/kg	4/24/96	8260
Methylene Chloride	< 25.0	ug/kg	4/24/96	8260
Methyl Tertiary Butyl Eth	< 25.0	ug/kg	4/24/96	8260
trans-1,2-Dichloroethene	< 25.0	ug/kg	4/24/96	8260
1,1-Dichloroethane	< 25.0	ug/kg	4/24/96	8260
2-Butanone	< 100	ug/kg	4/24/96	8260
cis-1,2-Dichloroethene	< 25.0	ug/kg	4/24/96	8260
Chloroform	< 25.0	ug/kg	4/24/96	8260
1,1,1-Trichloroethane	< 25.0	ug/kg	4/24/96	8260
Carbon Tetrachloride	< 25.0	ug/kg	4/24/96	8260
Benzene	< 25.0	ug/kg	4/24/96	8260
1,2-Dichloroethane	< 25.0	ug/kg	4/24/96	8260
Trichloroethene	< 25.0	ug/kg	4/24/96	8260
1,2-Dichloropropane	< 25.0	ug/kg	4/24/96	8260
Bromodichloromethane	< 25.0	ug/kg	4/24/96	8260
2-Hexanone	< 100	ug/kg	4/24/96	8260
Trans-1,3-Dichloropropene	< 25.0	ug/kg	4/24/96	8260
Toluene	< 25.0	ug/kg	4/24/96	8260

Analysis Performed	Results		Analyzed	Method
CIS-1,3-Dichloropropene	< 25.0	ug/kg	4/24/96	8260
1,1,2-Trichloroethane	< 25.0	ug/kg	4/24/96	8260
4-Methyl-2-Pentanone	< 100	ug/kg	4/24/96	8260
Tetrachloroethene	< 25.0	ug/kg	4/24/96	8260
Dibromochloromethane	< 25.0	ug/kg	4/24/96	8260
Chlorobenzene	< 25.0	ug/kg	4/24/96	8260
Ethylbenzene	< 25.0	ug/kg	4/24/96	8260
Total Xylenes	< 25.0	ug/kg	4/24/96	8260
Styrene	< 25.0	ug/kg	4/24/96	8260
Bromoform	< 25.0	ug/kg	4/24/96	8260
1,1,2,2-Tetrachloroethane	< 25.0	ug/kg	4/24/96	8260
1,3-Dichlorobenzene	< 25.0	ug/kg	4/24/96	8260
1,4-Dichlorobenzene	< 25.0	ug/kg	4/24/96	8260
1,2-Dichlorobenzene	< 25.0	ug/kg	4/24/96	8260

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency.

James H. Long, Director
Environmental Services Program
Division of Environmental Quality

c: KATHY FLIPPIN, HWP

STATE OF MISSOURI
Mel Carnahan, Governor • David A. Shorr, Director
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL QUALITY
P.O. Box 176 Jefferson City, MO 65102-0176

ENVIRONMENTAL SERVICES PROGRAM

RESULTS OF SAMPLE ANALYSES

Sample Number: 96-0124
Lab Number: 96-D1348

Reported To: JOE BOLAND
Affiliation: ESP
Project Code: 3531/3000

Report Date: 6/ 3/96
Date Collected: 3/10/96
Date Received: 3/10/96

Sample Collected by: CURTIS LUECKENHOFF, ESP
Sampling Location: BIG TAVERN CREEK
Sample Description: SOILS USED FOR BLANKS AFTER HEATING AND STORED IN SAMPLE JAR AT THE LABORATORY

Analysis Performed	Results		Analyzed	Method
VOA Results:				
Chloromethane	< 25.0	ug/kg	4/24/96	8260
Vinyl Chloride	< 25.0	ug/kg	4/24/96	8260
Bromomethane	< 25.0	ug/kg	4/24/96	8260
Chloroethane	< 25.0	ug/kg	4/24/96	8260
1,1-Dichloroethene	< 25.0	ug/kg	4/24/96	8260
Acetone	< 100	ug/kg	4/24/96	8260
Carbon Disulfide	< 25.0	ug/kg	4/24/96	8260
Methylene Chloride	< 25.0	ug/kg	4/24/96	8260
Methyl Tertiary Butyl Eth	< 25.0	ug/kg	4/24/96	8260
trans-1,2-Dichloroethene	< 25.0	ug/kg	4/24/96	8260
1,1-Dichloroethane	< 25.0	ug/kg	4/24/96	8260
2-Butanone	< 100	ug/kg	4/24/96	8260
cis-1,2-Dichloroethene	< 25.0	ug/kg	4/24/96	8260
Chloroform	< 25.0	ug/kg	4/24/96	8260
1,1,1-Trichloroethane	< 25.0	ug/kg	4/24/96	8260
Carbon Tetrachloride	< 25.0	ug/kg	4/24/96	8260
Benzene	47.0	ug/kg	4/24/96	8260
1,2-Dichloroethane	< 25.0	ug/kg	4/24/96	8260
Trichloroethene	< 25.0	ug/kg	4/24/96	8260
1,2-Dichloropropane	< 25.0	ug/kg	4/24/96	8260
Bromodichloromethane	< 25.0	ug/kg	4/24/96	8260
2-Hexanone	< 100	ug/kg	4/24/96	8260
Trans-1,3-Dichloropropene	< 25.0	ug/kg	4/24/96	8260

Analysis Performed	Results		Analyzed	Method
Toluene	28.0	ug/kg	4/24/96	8260
CIS-1,3-Dichloropropene	< 25.0	ug/kg	4/24/96	8260
1,1,2-Trichloroethane	< 25.0	ug/kg	4/24/96	8260
4-Methyl-2-Pentanone	< 100	ug/kg	4/24/96	8260
Tetrachloroethene	< 25.0	ug/kg	4/24/96	8260
Dibromochloromethane	< 25.0	ug/kg	4/24/96	8260
Chlorobenzene	< 25.0	ug/kg	4/24/96	8260
Ethylbenzene	< 25.0	ug/kg	4/24/96	8260
Total Xylenes	< 25.0	ug/kg	4/24/96	8260
Styrene	< 25.0	ug/kg	4/24/96	8260
Bromoform	< 25.0	ug/kg	4/24/96	8260
1,1,2,2-Tetrachloroethane	< 25.0	ug/kg	4/24/96	8260
1,3-Dichlorobenzene	< 25.0	ug/kg	4/24/96	8260
1,4-Dichlorobenzene	< 25.0	ug/kg	4/24/96	8260
1,2-Dichlorobenzene	< 25.0	ug/kg	4/24/96	8260

The analysis of this sample was performed in accordance with procedures approved or recognized by the U.S. Environmental Protection Agency.

James H. Long, Director
Environmental Services Program
Division of Environmental Quality

c: KATHY FLIPPIN, HWP

APPENDIX C

Certification for Purchased Blanks
Chemical Recovery Corp. RFA
Kansas City, MO
March 13, 1996

ENVIRONMENTAL
RESOURCE ASSOCIATES
Arvada, Colorado 80002 303-431-8454

Certification Blank Soil Matrix

Volatiles
Lot 54001

Parameter	Certified Value ug/Kg
Acetone [1]	78.7
Benzene	<5.0
Bromodichloromethane	<5.0
Bromoform	<5.0
Bromomethane	<10
2-Butanone (MEK) [1]	27.5
Carbon disulfide	<5.0
Carbon tetrachloride	<5.0
Chlorobenzene	<5.0
Chloroethane	<10
Chloroform	<5.0
Chloromethane	<10
Dibromochloromethane	<5.0
1,2-Dichlorobenzene	<5.0
1,3-Dichlorobenzene	<5.0
1,4-Dichlorobenzene	<5.0
1,1-Dichloroethane	<5.0
1,2-Dichloroethane	<5.0
1,1-Dichloroethylene	<5.0
1,2-Dichloroethylenes, total	<5.0
1,2-Dichloropropane	<5.0
cis-1,3-Dichloropropylene	<5.0
trans-1,3-Dichloropropylene	<5.0
Ethylbenzene [1]	6.00
2-Hexanone	<10
Methylene chloride	<5.0
4-Methyl-2-pentanone (MIBK)	<10
Styrene	<5.0
1,1,2,2-Tetrachloroethane	<5.0
Tetrachloroethylene	<5.0
Toluene [1]	7.02
1,1,1-Trichloroethane	<5.0
1,1,2-Trichloroethane	<5.0
Trichloroethylene	<5.0
Vinyl chloride	<10
Xylenes, total [1]	28.3

[1] The concentration of each analyte found is the mean of six analyses. The methodology followed for the analyses was SW-846 Methods 8240/8260.

APPENDIX C

ESP SAMPLING VISIT SAFETY PLAN

SAFETY OUTLINE

Site/Location: Chemical Recovery
County: Jackson

Page 1 of 1

Date Prepared: 3/06/96 Date Used: _____

		Initials		Initials
1.	**Prepared by:** Joe Boland	JKB	_____	_____
	for: _____	_____	_____	_____
	_____	_____	_____	_____
	_____	_____	_____	_____

2. **Purpose of Activity and Procedures:** To collect environmental samples for analysis which will be used in the RCRA Facility Assessment (RFA) process.

3. **Material(s):** Soils.

4. **Possible Hazards:** Contact with volatile organic compounds and heavy metals. Cold stress. Physical injuries associated slip, trip and fall.

5. **Personnel Monitoring:** All sampling personnel will be involved in a medical monitoring program and will be current.

6. **Site Monitoring:** Due to the low concentrations of the contaminants of conern, air monitoring in the breathing zone will not be necessary.

7. **Protective Level:** A B C [D]

8. **Protective Gear:**

Steel toed rubber boots	X	gloves, nitrile, inner	X
gloves, nitrile, outer	X	Hard-hat	X
Air Purifying Respirator	___	Safety glasses	X
Heavy duty coveralls	X	Tyvek	X
_____	___	_____	___

9. **Decontamination Procedures:** Personnel will utilize boots, gloves, safety glasses and protective clothing during sampling. Personnel will wash hands upon departing the site and properly containerize and dispose of any spent PPE, or equipment.

10. **Precautions, Site Control, Emergency Exit:** The majority of the sample collection will be outdoors. Soil sample collection will be conducted in protective level D.

11. **Hospital Location:** Park Lane Medical Center, Raytown Road

12. Phone Numbers: Hospital (816) 358-8000 Ambulance 911
Police 911 Fire Dept 911 Poison Control 911

APPENDIX D

SAMPLING VISIT LOGBOOK NOTES

3/13/96 Chemical Recovery

Tysely, Alan Reinkemeyer, Fuad Marmash, Aaron Schmidt - MDNR
Met with Merrill Nissan
The Geoprobe was used for most subsurface soil samples

Sample 96-1376 was a soil grab from SW corner of lot. It was chosen as a background. Collected from 2' deep. It was brown silty clay.

Sample 96-1377 was a soil grab collected from the west side of the building, 3' from wall. The sample was taken from the 2-3' interval. It was brown silty clay with gravel

Sample 96-1378 was a soil grab from the pile of dirt on east side building, from 2-3' deep, boring #1. The soil sample was a silty clay, dark brown.

Sample 96-1379 was a soil grab from the pile of dirt on east side of building, 2nd boring, 2' deep. The material was tan and very fine grained.

Sample 96-1380 was a soil grab from the east side of the building and next to the tanker trailer. Collected from the top 1 foot. The material was dark brown, silty sand.

Sample 96-1381 was a duplicate of 96-1380.

Sample 96-1382 was a soil trip blank.
Sample 96-1383 was a soil field blank, opened for about 5 minutes in the field under ambient conditions
Sample 96-1384 was an equipment blank collected from the SS bucket rinses used to collect samples 96-1380 & 1381

HAZARDOUS WASTE SITE SAMPLING REPORT

Chemical Recovery Corporation
RCRA Facility Assessment
Kansas City, Missouri
Jackson County

March 13, 1996

Prepared For:

Missouri Department of Natural Resources
Division of Environmental Quality
Hazardous Waste Program

Prepared By:

Missouri Department of Natural Resources
Division of Environmental Quality
Environmental Services Program

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	2.2 Site Description	1
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Appendix A - Site Map

Appendix B - Analytical Results

Appendix C - Certification for Purchased Blanks

1.0 Introduction

The Missouri Department of Natural Resources (MDNR), Hazardous Waste Program (HWP), requested the MDNR, Environmental Services Program (ESP), to collect surface and subsurface soil samples from the Chemical Recovery Corporation (CRC) in Kansas City, Missouri.

Environmental Specialists Alan Reinkemeyer and Joe Boland performed the sampling investigation on March 13, 1996. Environmental Engineers Fuad Marmash and Aaron Schmidt from the Hazardous Waste Program were present to identify locations for sample collection and to provide background information.

This sampling investigation was conducted as part of the MDNR's agreement with the U.S. Environmental Protection Agency to conduct RCRA Facility Assessments (RFA) at regulated facilities. The HWP will incorporate the analytical data and other information resulting from the sampling investigation into the final RFA report. The final report will then be used to formulate recommendations for further action if needed.

2.0 Site Description and History

2.1 Site Location

The CRC was located at 6402 Stadium Drive, in Kansas City, Missouri.

The specific locations where samples were collected can be found on the site map which is attached as Appendix A.

2.2 Site Description

CRC operates out of a former fire station that was built in 1911. The building was vacant from 1977 until 1980 when it was purchased by CRC.

This site is surrounded by a mixture of residential, retail, and commercial activities.

2.3 Site History/Contaminants of Concern

At one time, this facility was involved in the reclamation of metal finishing wastes and waste solvent mixes. Past practices may have resulted in the contamination of soil with volatile and semi-volatile organic compounds and heavy metals such as silver chromium, copper, nickel and lead.

The purpose of this sampling investigation was to determine if there has been a release of hazardous waste or hazardous substances to the environment.

3.0 Methods

3.1 Field Procedures

Most surface and subsurface soil samples were collected with the use of a truck-mounted Geoprobe unit. It was used to advance a 2.5-inch diameter stainless steel macro-core sampler to the desired depth. A dedicated, disposable acetate sleeve which lined the macro-core sampler was used for each boring. The only non-dedicated piece of equipment that would come in contact with a sample was the cutting shoe on the end of the macro-core sampler.

Once the sampler was retrieved from a boring, the cutting shoe was unscrewed from the end and the acetate sleeve containing the soil core was removed. The acetate sleeve was then cut open and a sample was collected from the desired depth. A photoionization detector (PID) was used for field screening the soil core for volatile organics. This aided in selecting where the sample was to be collected.

One soil sample was collected with the use of a stainless steel hand auger due to inaccessability of the Geoprobe unit.

In order to disturb the soil as little as possible when collecting the volatile organics, a 1-ounce glass jar was pushed directly into the soil core. A stainless steel spoon was then used to trim the soil at the top of the sample container in order to leave zero headspace. A Teflon-lined lid was then placed onto the container.

When collecting for semi-volatiles or metals, a stainless steel spoon was used to place the soil directly into a 9-ounce glass jar. A Teflon-lined lid was then placed onto the container.

The containers were filled in order of decreasing sensitivity to volatilization.

ESP personnel wore clean disposable nitrile gloves for each separate sample collected.

The decontamination of the non-dedicated equipment was accomplished through the following procedure. The gross contamination was removed by scrubbing with a brush in an Alconox

and water solution. This was followed by a deionized water rinse, a hydrochloric acid rinse, another deionized water rinse, a methanol rinse, and finally a hexane rinse. The equipment was then allowed to air dry.

3.2 Chain-of-Custody

All samples collected by ESP personnel received a numbered tag and were placed on ice in a cooler. A chain-of-custody form was then completed which recorded the sample tag numbers assigned to each sample, the description of the location of the sample collected, the time and date collected, and the parameters to be analyzed.

ESP personnel maintained custody of the samples by hand carrying them to the Environmental Services Program in Jefferson City where they were relinquished to laboratory personnel.

3.3 Analyses Requested

Samples were submitted to the state's environmental laboratory within the Environmental Services Program to be analyzed for various parameters, including volatile organic compounds, semi-volatile organic compounds and total metals (Ag, Cr, Cu, Ni, and Pb).

3.4 Quality Assurance/Quality Control (QA/QC)

All samples were analyzed in accordance with the general requirements and standard operating procedures of the Fiscal Year 1996 Generator/TSD Quality Assurance Project Plan.

One duplicate sample was collected in accordance with ESP QA/QC protocol. The duplicate was collected from a depth of 1' on the east side of the building next to the trailer. It was identified as sample 96-1381.

A soil trip blank for the analyses of volatile organic compounds was included among the rest of the sample containers. This blank was not opened in the field. It was identified as 96-1382.

A soil field blank for the analyses of volatile organic compounds was also included among the rest of the sample containers. This blank was opened in the field and placed in the work area. It was identified as 96-1383.

An equipment blank was collected from the non-dedicated cutting shoe of the Geoprobe. After it was decontaminated, deionized water was poured over the cutting shoe and collected directly

into the appropriate sample containers. This blank was analyzed for volatile and semi-volatile organic compounds and total metals (Ag, Cr, Cu, Ni and Pb).

4.0 Investigation Derived Wastes

All personal protective equipment and spent disposable sampling equipment generated by ESP personnel were containerized and properly disposed at the laboratory in Jefferson City.

5.0 Observations

The weather on March 13, 1996, was mild, with temperatures in the mid-50's, and partly cloudy with variable winds.

Sample 96-1376 was a soil grab collected at a depth of 3' from the southwest corner of the CRC lot as a background sample. It was a brown silty clay.

Sample 96-1377 was a soil grab collected at a depth of 2'-3' from the west side of the CRC building. It was a brown silty clay containing some gravel.

Sample 96-1378 was a soil grab collected at a depth of 2'-3' from boring #1 in the pile of dirt on the east side of the CRC building. It was a dark brown silty clay.

Sample 96-1379 was a soil grab collected at a depth of 2' from boring #2 in the pile of dirt on the east side of the CRC building. It was a very fine-grained tan silty clay.

Sample 96-1380 was a soil grab collected at a depth of 1' from between the east side of the CRC building and the tanker trailer. It was a dark brown silty sand.

Sample 96-1381 was collected as a duplicate of 96-1380.

Sample 96-1382 was a soil trip blank.

Sample 96-1383 was a soil field blank.

Sample 96-1384 was a water grab collected as an equipment blank from the stainless steel bucket auger used in the collection of samples 96-1380 and 96-1381.

See Appendix A for a site map showing the relative locations of each sample collected.

6.0 Data Reporting

Please refer to Appendix B for analytical results of samples collected.

Analysis of the soil trip blank, sample 96-1382, which was never opened in the field, indicated the presence of benzene and toluene at levels of 99 and 32 ppb, respectively. The field blank, sample 96-1383, which was opened in the field, indicated the presence of benzene and toluene at levels of 98 and 70 ppb, respectively.

Trip and field blanks were prepared by the ESP laboratory in the following manner. Two new one-liter amber jars were filled with soil from a rural area. The collector chose an area that appeared uncontaminated, and where the soil was naturally deposited. The jars were transported to the ESP laboratory and placed in a high-temperature oven at 800 degrees Celsius for four hours. The soil was then removed from the oven and transferred into 1.5 ounce sample jars with lids secured.

A portion of the soil used to make the trip and field blanks was analyzed prior to heating in the laboratory's high-temperature oven. There were no analytes reported above the detection limits. Also analyzed was an extra blank which had never left the laboratory nor been opened. This sample reported the presence of benzene and toluene at levels of 47 ppb and 28 ppb, respectively. This indicates that the contamination was picked up in the preparation and storage of the blanks and not the sample collection procedures. These results are also included in Appendix B as Sample Numbers 96-0123 and 96-0124.

The contamination of the soil blanks may be due to a vaccuum created in the sample jars after the lids were replaced and while the jars were still cooling. Any vaccuum created in the sample jar would act to concentrate contaminants found in the ambient air. According to the Agency for Toxic Substances and Disease Registry's Toxicological Profile for Benzene, background levels for benzene in air range from 2 to 20 ppb. Background levels for Toluene in air are typically less than 1,000 ppb.

The analytes found in the trip and field blanks are very common laboratory contaminants. The levels reported for the ESP-prepared blanks are well below any level of concern. For example, certified clean soil blanks purchased from laboratory suppliers will often have several analytes reported above their detection levels. Blank soils were purchased from Environmental Resource Associates subsequent to the CRC sampling investigation

and their certification reported levels of Acetone, MEK, Ethylbenzene, Toluene and Xylenes at 78.7 ppb, 27.5 ppb, 6.0 ppb, 7.02 ppb, and 28.3 ppb, respectively. This blank soil certification is attached as Appendix C for the reader's information.

Submitted by: Joe Boland

Joe K. Boland
Environmental Specialist
Superfund/RCRA Unit
Environmental Services Program

Date: 6-11-96

Approved by: Douglas V. Edwards for

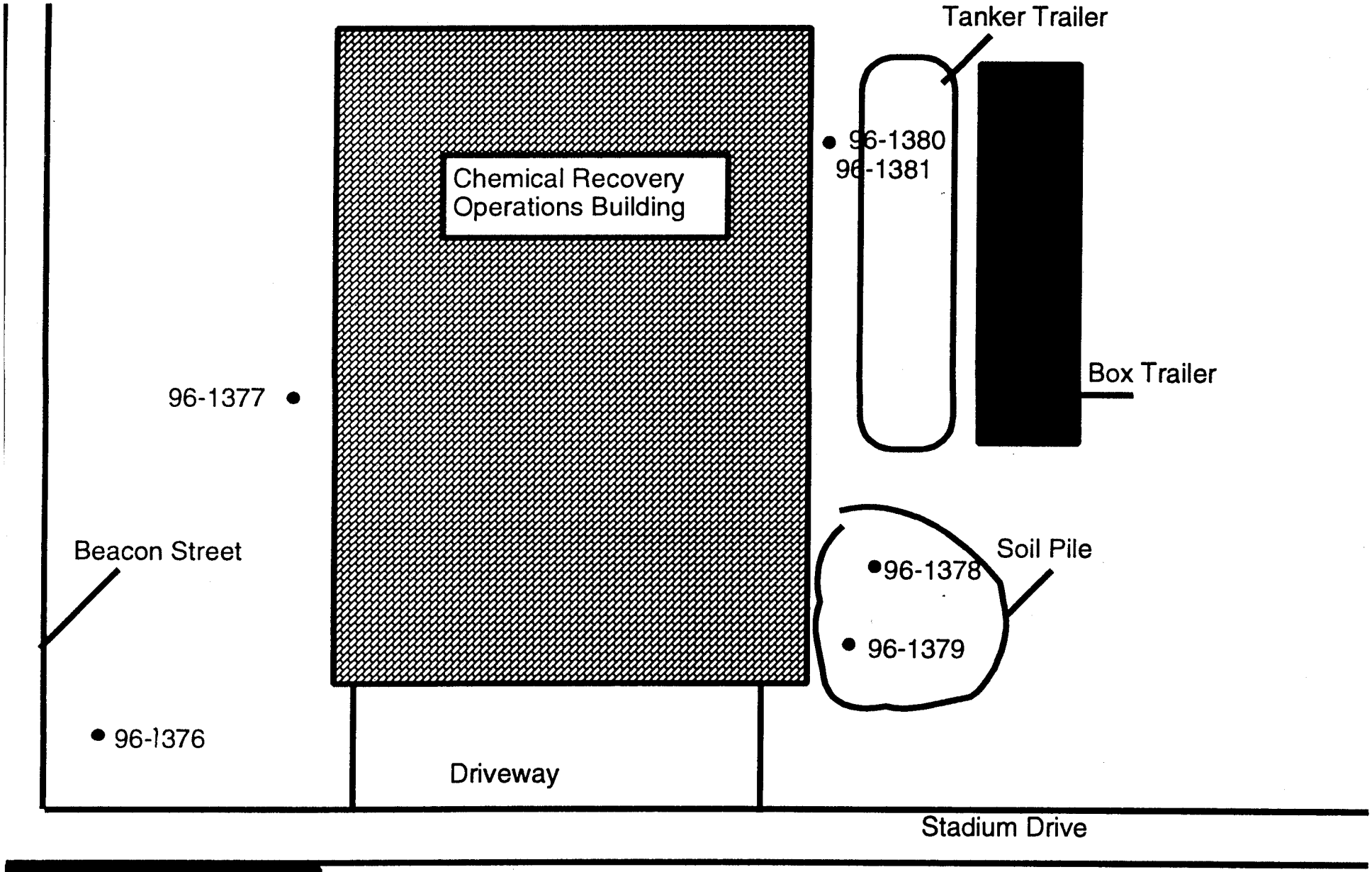
James H. Long
Director
Environmental Services Program

JHL:jbc

c: Richard Nussbaum, HWP

APPENDIX A

Site Map
Chemical Recovery Corp. RFA
Kansas City, MO
March 13, 1996



CHEMICAL RECOVERY
CORPORATION RFA
KANSAS CITY, MO
MARCH 11, 1996
not to scale

N

LEGEND

- Indicates the location of a boring

95-XXXX: Indicates location of sample collected